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EXAMINER				
TAKLE, MESEKER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,127

Applicant(s)

JANEVSKI, ANGEL

Examiner

MESEKER TAKELE

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10, 12-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 12-17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to the Amendment filed 11/09/2007.
2. Claims 1-8, 10, 12-17 and 19 are pending in this application. Claims 1 and 12 are independent claims. In the instant Amendment, claims 1, 10, 12, and 19 were amended.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al ("Choi" US Patent No.: 6,211,856) in view of Goulden et al. ("Goulden" US Patent No.: 5,956,025) in further in view of Cooper et al. ("Cooper" US Patent No.: 6,509,892).

As to claim 1, Choi discloses a control panel for a device, comprising:
a graphical user interface (GUI) displaying a plurality of control icons, wherein the plurality of control icons represent a plurality of corresponding control functions for controlling the device (col., 1 lines, 52-56 and col., 1 lines, 15-18).

However Choi does not explicitly disclose (a) the GUI displaying a plurality of user-selectable functionalities distributed over multiple display interfaces in a control hierarchy of a system; and (b) means for providing tactile detectability to said GUI to allow a user to detect at least one of the plurality of control icons by touch wherein the tactile detectability is provided to the GUI when the user is transitioning between the multiple display interfaces of the control hierarchy.

Goulden from the same field of endeavor disclose (a) the GUI displaying a plurality of user-selectable functionalities distributed over multiple display interfaces in a control hierarchy of a system (Figure 3 and col., 2 lines, 56-65); and (b) means for providing tactile detectability to said GUI to allow a user to detect at least one of the plurality of control icons by touch wherein the tactile detectability is provided to the GUI when the user is transitioning between the multiple display interfaces of the control hierarchy (Figure 4, 5 and 6 and col., 3 lines, 55-65).

It would have been obvious to have modified Choi's teaching at the time of the invention was made with the teaching of Goulden. The motivation to combine provides a more user-friendly GUI for control of a home entertainment system.

The modified Choi still does not explicitly disclose means for providing tactile detectability.

Cooper from the same field of endeavor discloses means for providing tactile detectability (Abstract).

It would have been obvious to have modified the modified Choi's teaching at the time of the invention was made with the teaching of Cooper. The motivation to combine

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a control surface that is flexible is enabled to provide a tactile-detectable graphical representation of graphical output from a data processing system.

As to claim 10, Choi discloses wherein said system is a consumer electronics system (col., 3 lines, 24-26).

6. Claims 2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al. ("Choi" US Patent No.: 6,211,856) in view of Goulden et al. ("Goulden" US Patent No.: 5,956,025) and Cooper et al. ("Cooper" US Patent No.: 6,509,892) and in further in view of Rosenberg et al. ("Rosenberg" US Patent No.: 6,429,846).

As to claim 2, the modified Choi does not disclose wherein said means for providing tactile detectability provides at least one surface vibration to said GUI.

Rosenberg from the same field of endeavor discloses wherein said means for providing tactile detectability provides at least one surface vibration to said GUI (col., 5 lines, 59-66).

It would have been obvious to have modified the modified Choi's GUI touch screen device at the time of the invention with tactile sensations as presented by Rosenberg. The motivation to combine to provide haptic feedback to the user in order that the user of a touchpad is therefore able to experience haptic sensations that assist and inform the user of targeting and other control tasks within the graphical environment.

As to claim 4, Rosenberg discloses wherein at least two of the plurality of control icons has different surface vibrations (col., 5 lines, 65-67 and col., 6 lines, 1-4).

As to claim 5, Rosenberg disclose wherein said at least one surface vibration is present on at least one control icon of said plurality of control icons and not present on a surrounding area of display (col., 15 lines, 12-23).

As to claim 6, Rosenberg further teaches said at least one surface vibration is present on an area of display surrounding said plurality of control icons and not present on said plurality of control icons (col., 15 lines 19-23).

As to claim 7, Rosenberg further teaches said at least one surface vibration is present on all of said control icons of the plurality of control icons and not present on a surrounding area of display (col., 15 lines 19-23).

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al ("Choi" US Patent No.: 6,211,856) in view of Goulden et al. ("Goulden" US Patent No.: 5,956,025), Cooper et al. ("Cooper" US Patent No.: 6,509,892) and Rosenberg et al. ("Rosenberg" US Patent No.: 6,429,846) and in further in view of Massimino et al. ("Massimino" US Patent No.: 5,619,180).

As to claim 3, the modified Choi does not disclose wherein said at least one surface vibration is in a range of about 10Hz to about 1 kHz.

Massimino from the same field of endeavor disclose wherein said at least one surface vibration is in a range of about 10Hz to about 1 kHz (col., 10 lines, 5-10).

It would have been obvious to have modified the modified Choi's GUI touch screen device the time of the invention with frequency of vibration on the order of 1,000 Hz as presented by Massimino.

The motivation to combine to provide a non-visual, non-reactive sensory substitution force feedback signal for use in connection with remote effectors applications, which does not overload the capabilities of the operator and which remains stable even in the presence of time delays.

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8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al (“Choi” US Patent No.: 6,211,856) in view of Goulden et al. (“Goulden” US Patent No.: 5,956,025) and Cooper et al. (“Cooper” US Patent No.: 6,509,892) in further in view of Ling et al. (“Ling” US Pub No.: 2003/0227374).

As to claim 8, the modified Choi does not disclose wherein said means for providing tactile detectability provides electrotactile stimulation to said GUI.

Ling from the same field of endeavor disclose wherein said means for providing tactile detectability provides electrotactile stimulation to said GUI (abstract).

It would have been obvious to have modified the modified Choi’s GUI touch screen device the time of the invention with electrotactile stimulation as presented by Ling. The motivation to combine provides, Electro-Tactile to apply Device electrical energy to the skin in order to stimulate the nerve axon of mechanoreceptors, and then generate tactile sensation (sense of touch).

9. Claims 12 -14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al (“Choi” US Patent No.: 6,211,856) in view of Goulden et al. (“Goulden” US Patent No.: 5,956,025) and Cooper et al. (“Cooper” US Patent No.: 6,509,892) and in further in view of Massimino et al. (“Massimino” US Patent No.: 5,619,180) and Ling et al. (“Ling” US Pub No.: 2003/0227374).

Claim 12 is similar in scope to claim 1, and is therefore rejected under similar rationale. However the modified Choi does not disclose vibrotactile means.

Massimino from the same field of endeavor disclose vibrotactile means (abstract).

It would have been obvious to have modified the modified Choi's teaching at the time of the invention was made with the teaching of Massimino. The motivation to combine is to provide force feedback through a sensory substitution display.

The modified Choi still does not explicitly disclose electrotactile means.

Ling from the same field of endeavor disclose electrotactile means (abstract).

It would have been obvious to have modified the modified Choi's teaching at the time of the invention was made with the teaching of Ling. The motivation to combine provides Electro-Tactile to apply Device electrical energy to the skin in order to stimulate the nerve axon of mechanoreceptors, and then generate tactile sensation (sense of touch).

As to claim 13, Massimino further teaches said vibrotactile means include at least one vibration in a range of about 10 Hz to about 1 kHz (col., 10 lines, 5-10).

As to claim 14, Massimino further teaches wherein at least two of the plurality of control icons has a different vibrotactile characteristic (col., 7 lines, 18-24).

As to claim 19, the modified Choi discloses wherein said system is a consumer electronics system (col., 3 lines, 24-26).

10. Claims 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al ("Choi" US Patent No.: 6,211,856) in view of Goulden et al. ("Goulden" US Patent No.: 5,956,025) and Cooper et al. ("Cooper" US Patent No.: 6,509,892) and in further in view of Massimino et al. ("Massimino" US Patent No.: 5,619,180) and Ling et al. ("Ling" US Pub No.: 2003/0227374).

As to claim 15, the modified Choi does not disclose wherein at least one vibrotactile characteristic is present on at least one control icon of said plurality of control icons and not present on a surrounding area of display.

Rosenberg from the same field of endeavor disclose wherein said at least one vibrotactile characteristic is present on at least one control icon of said plurality of control icons and not present on a surrounding area of display (col., 15 lines, 12-23).

It would have been obvious to have modified the modified Choi's GUI touch screen device the time of the invention with surface vibration as presented by Rosenberg.

The motivation to combine to provide the touch input device could include multiple different regions where at least one of the regions provides the position signal and at least one other region provides a signal that is used by the computer to control a different function.

Massimino further teaches vibrotactile (col., abstract).

As to claim 16, the modified Choi does not disclose wherein at least one vibrotactile characteristic is present on an area of display surrounding said plurality of control icons and not present on said plurality of control icons.

Rosenberg from the same field of endeavor disclose wherein said at least vibrotactile characteristic is present on an area of display surrounding said plurality of control icons and not present on said plurality of control icons (col., 15 lines 19-23).

It would have been obvious to have modified the modified Choi's GUI touch screen device the time of the invention with surface vibration as presented by Rosenberg.

The motivation to combine to provide the touch input device include multiple different regions where at least one of the regions provides the position signal and at least one other region provides a signal that is used by the computer to control a different function.

Massimino further teaches disclose vibrotactile (col., abstract).

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As to claim 17, Rosenberg teaches wherein said at least one surface vibration is present on all of said control icons of the plurality of control icons and not present on a surrounding area of display (col., 15 lines 19-23) and Massimino disclose vibrotactile (col., abstract).

Response to Arguments

11. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiry

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to MESEKER TAKELE whose telephone number is (571)270-1653. The examiner can normally be reached on Monday - Friday 7:30AM-5:00PM est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/M. T./

Examiner, Art Unit 2174**

/David A Wiley/

Supervisory Patent Examiner, Art Unit 2174